

Notice of Allowability

Application No.

09/876,439

Examiner

Phuongchau Ba Nguyen

Applicant(s)

BUABBUD ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1-28-05.
2. ☒ The allowed claim(s) is/are 1,4-5,10,35-38; Renumbered as 1-8 respectively.
3. ☒ The drawings filed on 28 January 2005 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Allowable Subject Matter

1. The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the prior art fails to teach or suggest in an existing optical network comprising a multiplicity of destination terminals, an intermediate terminal, and a primary terminal, each of said multiplicity of destination terminals including an optical interface unit (OIU) having an OIU input optical connector and an OIU output optical connector and each OIU for extracting data on lightwaves received at said OIU input optical connector and injecting data onto lightwaves transmitted from said OIU output optical connector, each of said destination terminals having a corresponding pair of optical fibers including a first fiber and a second fiber, and each of said OIU connected by said OIU input optical connector and said OIU output optical connector to each corresponding first fiber and second fiber, and said intermediate terminal connected to said primary terminal by at least a primary pair of optical fibers, apparatus for providing data transmission comprising "at said intermediate terminal said first fibers of said corresponding pair of optical fibers connected to said second fibers of other of said corresponding pairs of optical fibers, except said first optical fiber of one of the corresponding pairs of optical fibers is connected to said first conversion input optical connector and said optical fiber of another one of the corresponding pairs of optical fibers is connected to said first conversion output optical connector," in combination with other limitations, as specified in the independent claim 1.

Regarding claims 4-5 and 10, the prior art fails to teach or suggest in an existing optical network comprising a multiplicity of destination terminals, each of said

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destination terminal having a corresponding pair of optical fibers, each corresponding pair of optical fibers having a first fiber and a second fiber, and each of said destination terminals connected to an intermediate terminal by its corresponding pair of optical fibers, and said intermediate terminal connected to a primary terminal by at least a pair of primary optical fibers, apparatus for providing upgraded optical data transmission comprising said first fiber of said corresponding pair of optical fibers of said first destination terminal is connected to said first conversion output optical connector of said conversion circuit, and "said second fiber of said corresponding pair of optical fibers of said last distribution terminal connected to said first conversion input optical connector of said conversion circuit, the second fiber of said corresponding pair of optical fibers of said first destination terminal and the first fiber of said corresponding pair of optical fibers of said last distribution terminal connected so as to form a series optical loop extending between said first conversion output optical connector of said conversion circuit and at least through said first and last distribution terminals and back to said first conversion input optical connector of said conversion circuit," in combination with other limitations, as specified in the independent claim 4.

Regarding claims 35-38, the prior art fails to teach or suggest an apparatus for facilitating optical communication between a first terminal and a first remote optical interface unit (OIU) and a second remote OIU, each remote OIU having an OIU optical input and an OIU optical output, the first and second remote OIUs associated with a first pair and a second pair of optical fibers, respectively, each pair of optical fibers comprising a first fiber and a second fiber, the apparatus comprising "the second fiber of

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the first pair of optical fibers and the first fiber of the second pair of optical fibers define an optical communication loop separate from the optical communication unit; wherein the optical communication loop is defined by the second fiber of the first pair of optical fibers and the first fiber of the second pair of optical fibers by directly connecting the second fiber of the first pair of optical fibers to the first fiber of the second pair of optical fibers," in combination with other limitations, as specified in the independent claim 35.


2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 571-272-3148. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 2:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Phuongchau Ba Nguyen
Examiner
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DUCHO
PRIMARY EXAMINER



2-5-05